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DISK STORAGE - MAINFRAME

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DET owns and maintains a *Mainframe Disk Storage* environment in the State's Salt Lake and Richfield data centers. Storage space in this environment uses IBM ESS (Enterprise Storage Subsystem) attached via a Storage Area Network. This storage is for State agencies and other government entities requiring high data availability, reliability, fast data access, and the ability to handle large amounts of random I/O for business critical information.

Mainframe Disk Storage is allocated via Agency JCL programming parameters and Access Control Lists. Storage Allocation is automatically managed through DFSMS (Data Facility Storage Management Subsystem) ACS routines configured by DET storage Administrators. Storage allocation for a mainframe application is based on the dataset file name relating to the agency high level qualifier/naming convention. Billing for disk storage is based on allocation size and retention time.

PRODUCT FEATURES AND DESCRIPTIONS	
FEATURE	**DESCRIPTION**
Data Management	Automated data management for data allocation placement.
Data Availability	High availability automated data management using DFSMS HSM migration and backup/restore processes.
Data Safety	Redundant, fault-tolerant hardware and RAID protection provide high availability for high-profile applications.
Data Migration	Automated migration of datasets to secondary disk (Level 1) and to tape (Level 2).
Physically Safe	A secure, climate-controlled environment.
Monitoring	24x7 monitoring.
Reliable Power	Reliable uninterruptible power with UPS, battery, and generator backup.
Storage Administration	Technical Storage support for dataset creation, problems, job abends related to storage, data management, JCL, storage classification/allocation, and training.

Offsite Redundancy	Availability for redundant storage in Salt Lake and Richfield.
Security	Storage equipment resides in a Level 3 data center with multi-level security access.
Data Recovery	DET provides data recovery services and support.
Reclamation	Data reclamation services are provided.

FEATURES NOT INCLUDED

FEATURE	EXPLANATION
Data Resumption (business resumption) storage service	This service is available but sold separately.
Application Data Backup	This is the responsibility of the customer.
Open System Disk Storage	Not provided for Mainframe storage.

RATES AND BILLING

FEATURE	DESCRIPTION	FY09 BASE RATE
Monthly Charges	Disk space allocated	$.007/MB

ORDERING AND PROVISIONING

For existing mainframe applications:
1. Standard DET Mainframe disk storage services/ allocation can be accessed via Mainframe JCL parameters and will be charged based on Job Card and Data Set Naming information. Charges are based on MB stored per month.
2. Service and billing begins at data allocation to the disk storage.

For new mainframe applications:
Any government agency interested in purchasing mainframe storage should contact their DET Customer Relationship Manager. You can find the product description by going to: http://its.utah.gov/productsservices/datastorbackup/diskstorage/index.htm and clicking on the Product Description in the right panel. The provisioning process includes these steps:

1. The customer agency contacts their CRM.
2. The CRM works with the agency to enter a Remedy Service Request for the product.
3. The CRM works with the storage administrator and arranges for a needs assessment meeting between the customer agency and DET if needed. In this meeting the amount of storage, time frames for completion, and other parameters for the project are established.
4. The customer agency provides approval to DET to provision the required storage space.
5. DET storage administrators provision the required disk space.
6. The agency and DET coordinate efforts to connect the agency's servers to the provisioned

space.

7. Service and billing begins.

DTS/DET RESPONSIBILITIES

All storage hardware is maintained by DET with full support by the hardware vendor.

DET provides 24x7 monitoring of the storage environment.

DTS/AGENCY RESPONSIBILITIES

Backup of application data.

GENERAL SERVICE LEVELS AND METRICS

All technical incidents and service requests, and certain types of orders, related to products and services provided by DTS will be reported to the DTS Enterprise Service Desk or to specialized Help Desks that support State agencies or DTS divisions and regions. All incidents and requests will be captured in the DTS Remedy Help Desk application. DTS staff will provide timely acknowledgement and resolution of technical incidents and service requests.

DTS support staff, including staff directly assigned to the DTS Enterprise Service Desk, will exert all reasonable efforts to meet the Time to Initial Response (TIR) and Total Time to Resolution (TTR) targets set forth below.

The DTS Enterprise Service Desk is accessible 24x7 by telephone at 538-3440 or 800-678-3440. Live chat and direct user reporting of incidents are also available on the DTS website at dts.utah.gov. Published "Business Hours" for the DTS Service are 7:00 AM-6:00 PM, Monday-Thursday. Hours of support/on-call coverage varies by agency/division/region and product.

Incident Response and Resolution Targets

Time to Initial Response Targets	% Tickets	Total Time to Resolution Targets	% Tickets
Low priority – 1 Business hour	75%	Low priority - 6 Business hours	75%
Medium priority – 1 Business hour	75%	Medium priority - 3 Business hours	75%
High priority – Attempt Warm Transfer	90%	High priority - 4 Clock hours	75%
Urgent priority – Immediate Warm Transfer	95%	Urgent priority - 3 Clock hours	100%

Customer Satisfaction Surveys and Reporting

All users/customers whose technical incidents are resolved by DTS staff will be given the opportunity to respond to an on-line survey regarding their level of satisfaction with the support received from DTS. Responding to the survey is voluntary.

Periodic reports will be created showing the level of satisfaction with resolution of incidents by specific support groups and the level of satisfaction of users by agency.

Customer Satisfaction Targets

Metric Description	Target
Average level of satisfaction with resolution efforts	≥ 4.2 on a scale of 0 - 5
Percentage of respondents expressing satisfaction (vs. dissatisfaction)	93% of respondents satisfied